

THE ANNALS

321

AND

MAGAZINE OF NATURAL HISTORY.

[FOURTH SERIES.]

No. 11. NOVEMBER 1868.

XXXVIII.—*On the Occurrence of the Palatal Teeth of a Fish belonging to the Genus Climaxodus, M'Coy, in the Low-main Shale of Newsham.* By THOMAS ATTHEY*.

IN this communication I wish to make known the discovery of some palatal teeth which have occurred to me during the investigations I have made in the black shale of the Low-main seam of Newsham. Some of these have been in my possession more than eight years, others have been found recently. In the hope of obtaining more perfect information relative to these curious teeth, a notice of their occurrence in this locality has hitherto been delayed; but it seems desirable to give a short notice of their discovery at the present time, preparatory to a more lengthened and careful description of them.

Fourteen specimens of various sizes have occurred to me during the above-named period. Some of these are isolated palatal teeth; but on one slab of shale, about four inches long and two and a half broad, there are remains of not less than eight teeth; and from the manner in which they are imbedded, and the presence of great numbers of minute dermal tubercles in connexion with them, there can be no doubt that they all belonged to one individual.

The general form of the upper surface of the tooth is ovate. This upper surface is supported by a bony process, which springs from the under surface and projects beyond the smaller extremity. The narrow portion of the upper surface is crossed by from four to six transverse imbricating ridges. In the larger specimens these ridges are strongly undulated, with the upper edge roughly broken up into coarse granulations. The broader portion of this surface is occupied by a very wide furrow or hollow bounded at the broad end by a sharp, slightly

* Communicated by the Author, having been read at the Meeting of Tyneside Naturalists, Oct. 9, 1868.

denticulated margin. The narrow portion of the surface is ornamented with minute granulations; the broad furrow is striated in the direction of the length of the tooth. Three of the teeth are somewhat shorter than the rest; or, in other words, they have a more circular form.

The largest tooth measures, including the projecting bony process, an inch and a quarter in length, and is about seven-eighths of an inch wide in the broadest part. The smallest tooth is rather more than three-eighths of an inch long, and very nearly the same in the broadest part. In the small specimens the groove at the broad end is nearly as large as the remaining portion of the tooth.

On comparing these teeth with the figure given by M'Coy (British Palæozoic Fossils, pl. 3 G. f. 5) of his *Climaxodus imbricatus*, they are found to agree in having the narrow portion of the tooth ornamented with transverse ridges; but a further comparison cannot at present be made, as the figure given by M'Coy was from a specimen broken at both ends.

As it appears to be advisable to attach some name to this interesting fossil, and seeing that it agrees in some essential points with the genus *Climaxodus*, M'Coy, I propose to refer it provisionally to that genus, and, further, to distinguish the species which I have found at Newsham by the name of *Climaxodus linguæformis*.

Also I avail myself of the present occasion to announce that, in addition to *Climaxodus* and the species already described in former communications to the 'Annals,' several other interesting forms have been obtained from the shale of the Lowmain seam, of which no notice has been given, the most important of these being the following:—

Cœlacanthus lepturus, Ag.

Several entire specimens have occurred, but usually in a much disturbed state. Separate scales are not uncommon.

Strepsodus sauroides, Huxl.

Two or three jaws of this species, with the teeth attached, have been obtained, and numerous separate teeth.

Gyrolepis Rankinii, Ag.

Several specimens have occurred in a more or less complete state of preservation.

Platysomus parvulus (young?).

A few entire specimens have occurred.

Amphicentrum, sp. indet.

Three nearly perfect specimens have been found, and numerous mandibles exhibiting tuberculated plates.

Pleuracanthus lævissimus, Ag.

Several fine, interesting spines, in a good state of preservation, have occurred.

Orthacanthus cylindricus, Ag.

Numerous large well-preserved specimens of this fish-spine have been obtained.

Ctenacanthus hybodioides, Ag.

Five specimens have occurred, in a nearly perfect state of preservation; one specimen is eight inches long.

Leptacanthus, sp. indet.

A spine or two, apparently belonging to this genus, have occurred at Newsham.

Cladodus mirabilis, Ag.

Numerous specimens of the teeth, frequently associated with patches of dermal granules, have been found in several distant localities.

Pleuroodus Rankinii, Ag.

Numerous specimens of the teeth have occurred.

Pæcilodus, sp. indet.

Numerous specimens belonging to this genus have been found.

Petalodus, sp. indet.

Several teeth have been procured from the Low-main shale. Gosforth, Oct. 7, 1868.

XXXIX.—On the Fin-Whale called "Steypireyðr" by the Icelanders (*Balænoptera Sibbaldii*, Gray). By J. REINHARDT*.

SINCE the time when (some twenty years ago) Eschricht's researches on the northern whales had given an impulse to a more accurate study of these gigantic animals, a considerable number of different fin-whales have been stated to inhabit the seas of northern Europe. Hitherto, however, it is chiefly through the differences in their osteology that zoologists have

* Translated from 'Videnskabelige Meddelelser fra den Naturhistoriske Forening i Kjöbenhavn' for 1867, Nos. 8-11.